DATE: 07/24/2001

OIPE

```
PATENT APPLICATION: US/09/899,732
                                                              TIME: 10:39:04
                     Input Set: A:\57453c1.app
                     Output Set: N:\CRF3\07242001\1899732.raw
                                                                           Does Not Comply
                                                                       Corrected Diskette Needed
      3 <110> APPLICANT: Salon et al, John A.
      5 <120> TITLE OF INVENTION: DNA Encoding A Human Melanin Concentrating Hormone
              Receptor (MCH1) And Uses Thereof
      8 <130> FILE REFERENCE: 1795/57453-C/JPW
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/899,732
     11 <141> CURRENT FILING DATE: 2001-07-05
     13 <150> PRIOR APPLICATION NUMBER: 09/610,635
     14 <151> PRIOR FILING DATE: 2000-07-05
     16 <160> NUMBER OF SEQ ID NOS: 28
     18 <170> SOFTWARE: PatentIn Ver. 2.1
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     376 <211> LENGTH: 100
     377 <212> TYPE: PRT
     378 <213> ORGANISM: Artificial Sequence
     380 <220> FEATURE:
     381 <223> QTHER INFORMATION: Description of Artificial Sequence: mutated human
              (MCH1)
E--> 382
W--> 384 <210> SEQ ID NO:
W--> 384 <211> LENGTH:
W--> 384 <212> TYPE:
W--> 384 <213> ORGANISM:
     384 <400> SEQUENCE: 16
E--> 385 Met Ser Val Gly Ala Met Lys Lys Gly Val Gly Thr Ala Val Gly Leu
                                                                  15
     386
                                              10
     388 Gly Gly Gly Ser Gly Cys Gln Ala Thr Glu Glu Asp Pro Leu Pro Asp
     391 Cys Gly Ala Cys Ala Pro Gly Gln Gly Gly Arg Arg Trp Arg Leu Pro
     392
                                      40
     394 Gln Pro Ala Trp Val Glu Gly Ser Ser Ala Arg Leu Trp Glu Gln Ala
     395
              50
     397 Thr Gly Thr Gly Trp Ala Asp Leu Glu Ala Ser Leu Leu Pro Thr Gly
                                                  75
                              70
     400 Pro Asn Ala Ser Asn Thr Ser Asp Gly Pro Asp Asn Leu Thr Ser Ala
     401
     403 Gly Ser Pro Pro
     404
                     100
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     408 <211> LENGTH: 100
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     413 <223> OTHER INFORMATION: Description of Artificial Sequence: mutated human -
E--> 414
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RAW SEQUENCE LISTING

DATE: 07/24/2001

TIME: 10:39:04

Input Set: A:\57453c1.app Output Set: N:\CRF3\07242001\1899732.raw W--> 416 <210> SEQ ID NO: W--> 416 <211> LENGTH: W--> 416 <212> TYPE: W--> 416 <213> ORGANISM: 416 <400> SEQUENCE: 17 E--> 417 Met Ser Val Gly Ala Ala Lys Lys Gly Val Gly Arg Ala Val Gly Leu 420 Gly Gly Gly Ser Gly Cys Gln Ala Thr Glu Glu Asp Pro Leu Pro Asp 20 25 423 Cys Gly Ala Cys Ala Pro Gly Gln Gly Gly Arg Arg Trp Arg Leu Pro 426 Gln Pro Ala Trp Val Glu Gly Ser Ser Ala Arg Leu Trp Glu Gln Ala 429 Thr Gly Thr Gly Trp Ala Asp Leu Glu Ala Ser Leu Leu Pro Thr Gly 70 75 432 Pro Asn Ala Ser Asn Thr Ser Asp Gly Pro Asp Asn Leu Thr Ser Ala 90 435 Gly Ser Pro Pro 436 100 535 <210> SEQ ID NO: 26 536 <211> LENGTH: 422 537 <212> TYPE: PRT 538 <213> ORGANISM: Artificial Sequence 540 <220> FEATURE: 541 <223> OTHER INFORMATION: Description of Artificial Sequence: mutated human MCH1 E--> 542 W--> 544 <210> SEQ ID NO: W--> 544 <211> LENGTH: W--> 544 <212> TYPE: W--> 544 <213> ORGANISM: 544 <400> SEQUENCE: 26 E--> 545 Met Ser Val Gly Ala Met Lys Lys Gly Val Gly Arg Ala Val Gly Leu 546 10 548 Gly Gly Gly Ser Gly Cys Gln Ala Thr Glu Glu Asp Pro Leu Pro Asp 2.0 25 551 Cys Gly Ala Cys Ala Pro Gly Gln Gly Gly Arg Arg Trp Arg Leu Pro 40 554 Gln Pro Ala Trp Val Glu Gly Ser Ser Ala Arg Leu Trp Glu Gln Ala 557 Thr Gly Thr Gly Trp Ala Asp Leu Glu Ala Ser Leu Leu Pro Thr Gly 560 Pro Asn Ala Ser Asn Thr Ser Asp Gly Pro Asp Asn Leu Thr Ser Ala 8.5 90 563 Gly Ser Pro Pro Arg Thr Gly Ser Ile Ser Tyr Ile Asn Ile Ile Met 100 105 566 Pro Ser Val Phe Gly Thr Ile Cys Leu Leu Gly Ile Ile Gly Asn Ser 120 125 115 569 Thr Val Ile Phe Ala Val Val Lys Lys Ser Lys Leu His Trp Cys Asn 570 130 135

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/899,732

RAW SEQUENCE LISTING DATE: 07/24/2001 PATENT APPLICATION: US/09/899,732 TIME: 10:39:04

Input Set : A:\57453c1.app

Output Set: N:\CRF3\07242001\1899732.raw

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572 Asn Val Pro Asp Ile Phe Ile Ile Asn Leu Ser Val Val Asp Leu Leu
                             150
                                                 155
     573 145
     575 Phe Leu Leu Gly Met Pro Phe Met Ile His Gln Leu Met Gly Asn Gly
                                            170
                        165
     578 Val Trp His Phe Gly Glu Thr Met Cys Thr Leu Ile Thr Ala Met Asp
                    180
                                         185
     581 Ala Asn Ser Gln Phe Thr Ser Thr Tyr Ile Leu Thr Ala Met Ala Ile
                                     200
                                                         205
                195
     584 Asp Arg Tyr Leu Ala Thr Val His Pro Ile Ser Ser Thr Lys Phe Arg
                                 215
                                                     220
            210
     587 Lys Pro Ser Val Ala Thr Leu Val Ile Cys Leu Leu Trp Ala Leu Ser
                             230
     590 Phe Ile Ser Ile Thr Pro Val Trp Leu Tyr Ala Arg Leu Ile Pro Phe
                         245
                                             250
     593 Pro Gly Gly Ala Val Gly Cys Gly Ile Arg Leu Pro Asn Pro Asp Thr
                                         265
                     260
     596 Asp Leu Tyr Trp Phe Thr Leu Tyr Gln Phe Phe Leu Ala Phe Ala Leu
                275
                                    280
     599 Pro Phe Val Val Ile Thr Ala Ala Tyr Val Arg Ile Leu Gln Arg Met
         290
                                 295
                                                     300
     602 Thr Ser Ser Val Ala Pro Ala Ser Gln Arg Ser Ile Arg Leu Arg Thr
     603 305
                             310
                                                 315
     605 Lys Arg Val Thr Arg Thr Ala Ile Ala Ile Cys Leu Val Phe Phe Val
                         325
                                             330
     608 Cys Trp Ala Pro Tyr Tyr Val Leu Gln Leu Thr Gln Leu Ser Ile Ser
                                         345
     609
                     340
     611 Arg Pro Thr Leu Thr Phe Val Tyr Leu Tyr Asn Ala Ala Ile Ser Leu
                 355
                                     360
     612
     614 Gly Tyr Ala Asn Ser Cys Leu Asn Pro Phe Val Tyr Ile Val Leu Cys
                                 375
                                                     380
           370
     617 Glu Thr Phe Arg Lys Arg Leu Val Leu Ser Val Lys Pro Ala Ala Gln
                             390
                                                 395
     620 Gly Gln Leu Arg Ala Val Ser Asn Ala Gln Thr Ala Asp Glu Glu Arg
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                                             410
     623 Thr Glu Ser Lys Gly Thr
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     627 <210> SEQ ID NO: 27
     628 <211> LENGTH: 422
     629 <212> TYPE: PRT
     630 <213> ORGANISM: Artificial Sequence
     632 <220> FEATURE:
     633 <223> OTHER INFORMATION: Description of Artificial Sequence: mutated human
             C'MCH1)
E--> 634
W--> 636 <210> SEQ ID NO:
W--> 636 <211> LENGTH:
W--> 636 <212> TYPE:
W--> 636 <213> ORGANISM:
     636 <400> SEQUENCE: 27
E--> 637 Met Ser Val Gly Ala Ala Lys Lys Gly Val Gly Arg Ala Val Gly Leu
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RAW SEQUENCE LISTING DATE: 07/24/2001 PATENT APPLICATION: US/09/899,732 TIME: 10:39:04

Input Set : A:\57453c1.app

Output Set: N:\CRF3\07242001\I899732.raw

638	1				5					10					15	
		Gly	Glv	Ser		Cvs	Gln	Ala	Thr		Glu	Asp	Pro	Len		Asp
641	O.r. y	011	O = Y	20	011	0,10	02		25	014		1101		30		110 F
	Cys	Gly	Ala	Cys	Ala	Pro	Gly	Gln	Gly	Gly	Arg	Arg	Trp	Arg	Leu	Pro
644	-	-	35	-			_	40	_	_	-	_	45	_		
646	Gln	Pro	Ala	Trp	Val	Glu	Gly	Ser	Ser	Ala	Arg	Leu	Trp	Glu	Gln	Ala
647		50					55					60				
		Gly	Thr	Gly	Trp		Asp	Leu	Glu	Ala		Leu	Leu	Pro	Thr	
650	65	_		~	-	70	_	_	~ 1		75		-	m)	a .	80
	Pro	Asn	Ala	Ser		Thr	Ser	Asp	GTA		Asp	Asn	Leu	Thr	Ser 95	Ala
653	C1.,	Ser	Dro	Dro	85	Thr	Clu	Sar	Tla	90 Ser	ጥኒፖ	Tla	Aen	Tlo		Ma+
656	СТУ	Ser	PLO	100	Arg	1111	сту	Ser	105	Ser	тут	116	ASII	110	116	Mec
	Pro	Ser	Val		Glv	Thr	Tle	Cvs		Len	Glv	Ile	Tle		Asn	Ser
659	110	001	115	1110	0-1	****	-110	120			<i>1</i>		125	~-1		
	Thr	Val	Ile	Phe	Ala	Val	Val	Lys	Lys	Ser	Lys	Leu	His	Trp	Cys	Asn
662		130					135	_	-		_	140		_	_	
664	Asn	Val	Pro	Asp	Ile	Phe	Ile	Ile	Asn	Leu	Ser	Val	Val	Asp	Leu	Leu
	145					150					155					160
	Phe	Leu	Leu	Gly		Pro	Phe	Met	Ile		Gln	Leu	Met	Gly		Gly
668		_			165	~ 1	m)		~	170	.	т 1 -	m1	7. 1 -	175	70
	Val	Trp	His		GTA	GLu	Thr	Met	185	Thr	ьeu	тте	Tnr	190	мет	Asp
671	71.	Asn	Cor	180	Dho	Thr	Sor	Thr		Tlo	T. 211	Thr	בומ		Δla	ΤlΔ
674	AIA	ASII	195	GIII	rne	1111	261	200	тут	116	пеа	1111	205	Hec	ліа	110
	Asp	Arg		Leu	Ala	Thr	Val		Pro	Ile	Ser	Ser		Lvs	Phe	Ara
677		210	- 1 -				215					220		-		,
	Lys	Pro	Ser	Val	Ala	Thr	Leu	Val	Ile	Cys	Leu	Leu	Trp	Ala	Leu	Ser
	225					230					235					240
682	Phe	Ile	Ser	Ile		Pro	Val	Trp	Leu		Ala	Arg	Leu	Ile		Phe
683	_		_ •		245		_	~ 7		250	_	_	_	_	255	m)
	Pro	Gly	GL,y		Val	GLy	Cys	Gly		Arg	Leu	Pro	Asn		Asp	Thr
686	7\ ~ ~	Leu	П	260	Dho	Прх	T 011	Тиг	265 Cln	Dho	Dho	T ON	Λla	270 Pho	7/1 -	TOU
689	ASP	ьеu	275	rrb	rne	THIL	шеи	280	GIII	rne	rne	пец	285	riie	AIA	neu
	Pro	Phe		Val	Tle	Thr	Ala		Tvr	Val	Ara	Ile		Gln	Ara	Met
692	110	290					295		- 1 -		9	300			5	
694	Thr	Ser	Ser	Val	Ala	Pro	Ala	Ser	Gln	Arg	Ser	Ile	Arg	Leu	Arg	Thr
	305															320
697	Lys	Arg	Val	Thr	Arg	Thr	Ala	Ile	Ala	Ile	Cys	Leu	Val	Phe	Phe	Val
698					325					330			_		335	_
	Cys	Trp	Ala		Tyr	Tyr	Val	Leu		Leu	Thr	Gln	Leu		Ile	Ser
701	70	.	m1	340	m 1	DL -	17- 1	Ш	345	m	7 ~~	71.7	7.1.	350	Com	T 011
703	Arg	Pro	355	ьeu	IIII,	rne	vaı	360	ьeu	ı Ar.	ASII	HIG	365	тте	ser.	ьeu
	Glv	Tyr		Asn	Ser	Cvs	Leu		Pro	Phe	Val	Tvr		Val	Leu	Cvs
707	∪± y	370	, i i u	11011	201		375					380	-20			-10
	Glu	Thr	Phe	Arg	Lys	Arg		Val	Leu	Ser	Val		Pro	Ala	Ala	Gln
	385			,	-	390					395	•				400

DATE: 07/24/2001

TIME: 10:39:04

Input Set: A:\57453c1.app Output Set: N:\CRF3\07242001\I899732.raw 712 Gly Gln Leu Arg Ala Val Ser Asn Ala Gln Thr Ala Asp Glu Glu Arg 713 405 410 715 Thr Glu Ser Lys Gly Thr 420 719 <210> SEQ ID NO: 28 720 <211> LENGTH: 353 721 <212> TYPE: PRT 722 <213> ORGANISM: Artificial Sequence 724 <220> FEATURE: 725 <223> OTHER INFORMATION: Description of Artificial Sequence: mutated human MCH1 W--> 728 <210> SEQ ID NO: W--> 728 <211> LENGTH: W--> 728 <212> TYPE: W--> 728 <213> ORGANISM: 728 <400> SEQUENCE: 28 E--> 729 Met Asp Leu Glu Ala Ser Leu Leu Pro Thr Gly Pro Asn Ala Ser Asn 10 732 Thr Ser Asp Gly Pro Asp Asn Leu Thr Ser Ala Gly Ser Pro Pro Arg 25 20 735 Thr Gly Ser Ile Ser Tyr Ile Asn Ile Ile Met Pro Ser Val Phe Gly 40 35 738 Thr Ile Cys Leu Leu Gly Ile Ile Gly Asn Ser Thr Val Ile Phe Ala 741 Val Val Lys Lys Ser Lys Leu His Trp Cys Asn Asn Val Pro Asp Ile 70 744 Phe Ile Ile Asn Leu Ser Val Val Asp Leu Leu Phe Leu Leu Gly Met 85 90 747 Pro Phe Met Ile His Gln Leu Met Gly Asn Gly Val Trp His Phe Gly 105 750 Glu Thr Met Cys Thr Leu Ile Thr Ala Met Asp Ala Asn Ser Gln Phe 120 115 753 Thr Ser Thr Tyr Ile Leu Thr Ala Met Ala Ile Asp Arg Tyr Leu Ala 135 130 756 Thr Val His Pro Ile Ser Ser Thr Lys Phe Arg Lys Pro Ser Val Ala 150 155 759 Thr Leu Val Ile Cys Leu Leu Trp Ala Leu Ser Phe Ile Ser Ile Thr 170 165 762 Pro Val Trp Leu Tyr Ala Arg Leu Ile Pro Phe Pro Gly Gly Ala Val 185 765 Gly Cys Gly Ile Arg Leu Pro Asn Pro Asp Thr Asp Leu Tyr Trp Phe 195 200 768 Thr Leu Tyr Gln Phe Phe Leu Ala Phe Ala Leu Pro Phe Val Val Ile 215 771 Thr Ala Ala Tyr Val Arg Ile Leu Gln Arg Met Thr Ser Ser Val Ala 235 230 774 Pro Ala Ser Gln Arg Ser Ile Arg Leu Arg Thr Lys Arg Val Thr Arg 245 250 777 Thr Ala Ile Ala Ile Cys Leu Val Phe Phe Val Cys Trp Ala Pro Tyr

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/899,732

RAW SEQUENCE LISTING

DATE: 07/24/2001

PATENT APPLICATION: US/09/899,732 TIME: 10:39:04

Input Set : A:\57453c1.app

Output Set: N:\CRF3\07242001\I899732.raw

778				260					265					270		
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783	Phe	Val	Tyr	Leu	Tyr	Asn	Ala	Ala	Ile	Ser	Leu	Gly	Tyr	Ala	Asn	Ser
784		290					295					300				
786	Cys	Leu	Asn	Pro	Phe	Val	Tyr	Ile	Val	Leu	Cys	Glu	Thr	Phe	Arg	Lys
787	305					310					315					320
789	Arg	Leu	Val	Leu	Ser	Val	Lys	Pro	Ala	Ala	Gln	Gly	Gln	Leu	Arg	Ala
790					325					330					335	
792	Val	Ser	Asn	Ala	Gln	Thr	Ala	Asp	Glu	Glu	Arg	Thr	Glu	Ser	Lys	Gly
793				340					345					350		
795	Thr															



DATE: 07/24/2001 PATENT APPLICATION: US/09/899,732 TIME: 10:39:05

Input Set: A:\57453c1.app

Output Set: N:\CRF3\07242001\1899732.raw

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L:382 M:252 E: No. of Seq. differs, <211>LENGTH:Input:100 Found:0 SEQ:16
L:384 M:282 W: Numeric Field Identifier Missing, <210> is required.
L:384 M:282 W: Numeric Field Identifier Missing, <211> is required.
L:384 M:282 W: Numeric Field Identifier Missing, <212> is required.
L:384 M:282 W: Numeric Field Identifier Missing, <213> is required.
L:414 M:252 E: No. of Seq. differs, <211>LENGTH:Input:100 Found:0 SEQ:17
L:416 M:282 W: Numeric Field Identifier Missing, <210> is required.
L:416 M:282 W: Numeric Field Identifier Missing, <211> is required.
L:416 M:282 W: Numeric Field Identifier Missing, <212> is required.
L:416 M:282 W: Numeric Field Identifier Missing, <213> is required.
L:542 M:252 E: No. of Seq. differs, <211>LENGTH:Input:422 Found:0 SEQ:26
L:544 M:282 W: Numeric Field Identifier Missing, <210> is required.
L:544 M:282 W: Numeric Field Identifier Missing, <211> is required.
L:544 M:282 W: Numeric Field Identifier Missing, <212> is required.
L:544 M:282 W: Numeric Field Identifier Missing, <213> is required.
L:634 M:252 E: No. of Seq. differs, <211>LENGTH:Input:422 Found:0 SEQ:27
L:636 M:282 W: Numeric Field Identifier Missing, <210> is required.
L:636 M:282 W: Numeric Field Identifier Missing, <211> is required.
L:636 M:282 W: Numeric Field Identifier Missing, <212> is required.
L:636 M:282 W: Numeric Field Identifier Missing, <213> is required.
L:726 M:252 E: No. of Seq. differs, <211>LENGTH:Input:353 Found:0 SEQ:28
L:728 M:282 W: Numeric Field Identifier Missing, <210> is required.
L:728 M:282 W: Numeric Field Identifier Missing, <211> is required.
L:728 M:282 W: Numeric Field Identifier Missing, <212> is required.
L:728 M:282 W: Numeric Field Identifier Missing, <213> is required.
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